

REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 1, 3-9, 11-12, 15, 19, 23-25, and 28-35 are now pending.

The Abstract of the Disclosure was objected to as including a phrase that can be implied. The Abstract has been revised as suggested by the Examiner. Reconsideration and withdrawal of the rejection is solicited.

Claim 10 was rejected under 35 USC 112, second paragraph, as being indefinite. A revised version of claim 10 has now been incorporated into an amended claim 6. The limitations of claim 10 have been revised to obviate the grounds for the Examiner's rejection.

Claims 13 and 14 were rejected under 35 USC 102(b) as being anticipated by Bonzo ('773). Applicant respectfully traverses this rejection. However, claims 13 and 14 have been canceled above to advance prosecution.

Claims 6-12 were rejected under 35 USC 103(a) as being unpatentable over JP 03-169312 in view of Bonzo ('773) and further in view of Higuchi et al ('357). Applicant respectfully traverse these rejections. A revised version of claim 10 has been incorporated into an amended claim 6 and claims 11 and 12 have been presented in independent form. The invention recited in claims 6, 11 and 12 is characterized in that the masking powder contains 1) a mixture of resin powders including a resin powder having a melting point; 2) a foaming agent; or 3) a fluidity improver, respectively.

In order to prove obviousness, a challenger must present prior art references which disclose the claimed subject matter of the patent/application in question. If separate prior art references each disclose separate elements of a claim, the challenger must also show some teaching, suggestion, or incentive in the prior art that would have

led one of ordinary skill in the art to make the claimed combination. See, e.g., *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297 n.24, 304-05 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986). In determining obviousness, there must be some reason other than hindsight for selectively combining the prior art references to render the claimed invention obvious. See, e.g., *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985).

In contrast to the invention claimed in claims 6, 11 and 12, JP 03-169312 discloses the use of thermoplastic resin powders as a masking powder, but JP '312 fails to teach resin powder having a melting point; a foaming agent; or a fluidity improver.

Indeed, JP '312 as supplied by the Examiner includes an English language abstract. The English language abstract describes thermoplastic resin powders put into channels and fused to form a masking, clogging open channels with ceramic and then heating the whole body is heated to burn out the thermoplastic resin maskings. Contrary to the Examiner's characterization of JP '312, this English language abstract does not disclose a masking powder that comprises a mix of resins, nor a masking powder comprising a thermosetting resin including a foaming agent or a fluidity improver. Therefore, the combination of art cited by the Examiner does not meet the limitations of the claims.

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The invention of these claims also provides substantial advantages over the applied art. More particularly, as described on page 12 of the specification, by providing a mixture of resin powders, at least one of which has a melting point, during the process of hardening the masking powder, one type of resin powder is melted while the other type(s) of resin powder maintain a solid state. As a result, the solid resin powder is distributed uniformly to provide an improved uniformity of the mask portions.

With reference to claim 11, as described on page 12, final paragraph, by providing a masking powder containing a foaming agent, advantageously, a space can be filled by foaming between the particles of the thermosetting resin at the time the

masking powder is hardened. Thus, gaps which otherwise might exist around the masking portion are completely eliminated by expanding the volume of the masking portion.

With reference to claim 12 and as described at page 13, first paragraph, of the specification, advantageously, by providing a masking powder that contains a fluidity improver, a comparatively high density masking powder can be deposited thereby making it easy to acquire high compaction at the time of hardening.

It is therefore respectfully submitted that the subject matter of claims 6, 11 and 12 is not anticipated by nor obvious from the prior art cited and combined by the Examiner.

Claims 1-5 were rejected under 35 USC 103(a) as being unpatentable over Higuchi et al ('357) in view of Bonzo ('773). Further, claims 1-5, 15-22 and 25 were rejected under 35 USC 103(a) as being unpatentable over Bonzo ('773) in view of Higuchi et al ('357). To advance prosecution, the limitations of claim 26 and intervening claim 17 have been incorporated into an amended claim 15. Also claim 1 has been amended to incorporate the limitations of claims 2 and 26. Therefore the Examiner's rejection of these claims has been mooted.

Claim 23 was rejected under 35 USC 103(a) as being unpatentable over Bonzo ('773) in view of Higuchi et al ('357) and further in view of Ogawa ('193). Applicant respectfully traverses this rejection. Claim 23 depends from amended claims 1 or 15 and is submitted to be allowable thereover for the same reasons. Indeed, the amendments noted above have mooted the Examiner's rejection of claim 23.

Claims 24 and 26 were rejected under 35 USC 103(a) as being unpatentable over Bonzo ('773) in view of Higuchi et al ('357) and further in view of Noddin ('950). Applicant respectfully traverses this rejection.

The invention as recited in claim 26 provides a process whereby the through holes which can be formed precisely without any of the film remaining therein (as recited as dependent claims 34 and 35).

In contrast, the references cited by the Examiner fail to teach or suggest the formation of holes as claimed.

Noddin relates to a method of forming a via in a laminated substrate by placing a mask between an output optics of a laser and an exposed surface of a laminated substrate. Noddin does not relate in any way to a method of fabricating a honeycomb structure and it is respectfully submitted that the skilled artisan in the absence of applicant's disclosure would not obviously adopt the teachings of Noddin to modify the primary references as suggested by the Examiner.

As the CAFC has said, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. ACS Hospital Systems v Montefiore Hospital, 221 USPQ 929, 933 (Fed. Cir. 1984). There must be a suggestion in the art relied upon to use what one reference discloses in or in combination with the disclosure of the other reference or references relied upon by the Examiner. In re Grabiak, 226 USPQ 870, 872 (Fed. Cir. 1986).

Higuchi discloses a needle jig 6 provided with needles 5 for forming holes in his film (column 3, lines 48-57). Bonzo also teaches a needle like probe 31 which may be heated. Thus, it is clear that both of the primary references cited by the Examiner teach forming the holes with a contact/pressing probe as a punch, possibly aided by heat. The skilled artisan in the absence of applicant's disclosure would not be motivated in any way to modify Bonzo or Higuchi in this regard. There is no teaching in those references or the remaining art of record of a deficiency in the through hole forming process they disclose and the secondary reference cited by the Examiner certainly does not supply the required motivation. An advantage of the use of a high

energy beam as claimed by applicant in the combination claimed is that no film will remain at the formed through hole as may occur with Higuchi's process and, further, in contrast to the Bonzo apparatus, it is possible with the invention to form unique and asymmetric through-hole patterns at high speed and with high precision.

Thus, in the present case the Examiner has cited no motivation other than his hindsight knowledge of the invention claimed by applicant for the proposed modification of the primary references in view of the Noddin disclosure.

Inasmuch as the invention claimed is not only different from the references cited but provides significant and unanticipated advantages thereover, reconsideration and withdrawal of the Examiner's rejection of claims 1 and 15, which now incorporate the limitations of previously presented claim 26, are requested.

Claims 27-31 were rejected under 35 USC 103(a) as being unpatentable over Bonzo ('773) in view of Higuchi et al ('357) and further in view of Gawa ('330). Applicant respectfully traverses this rejection.

Gawa et al ('330) teaches a process for forming holes in a resin sheet comprising: dividing the resin sheet into a plurality of demarcation sections; forming holes using a laser in each section individually; and then translating the resin sheet to the next demarcation section. However, Gawa et al fails to teach the features "the end surface of the honeycomb structure body is segmented into a plurality of blocks for each of which the image data for an area including the particular block and a portion duplicated with at least a part of an adjacent block is collected for each block, and the image data for all the blocks are coupled to each other by superposing the duplicated areas thereby to produce the positional information on the cell ends for the entire surface end" as recited in, e.g., claim 29.

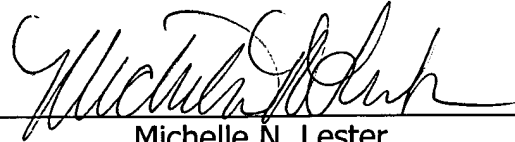
YAMAGUCHI et al
Appl. No. 09/853,028
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All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

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